**MMR-0289 Leslie L. Eaton  The third lady to become an MMR!  She is a NASA staff member!**

***Lives in Houston, TX, and is a Member of the Lone Star Region.  Leslie has earned Certificates of Achievement as a Master Builder of Motive Power, Cars and Structures, a Model Railroad Civil Engineer Civil and Electrical, An Association Volunteer and a Model Railroad Author.***

***Leslie is out third lady MMR.  Congratulations Leslie!*** **By Pete Moffett AP Chair May 2000**

**READ ARTICLE BY LESLIE EATON ON THE FOLLOWING PAGE**

# Short Circuit

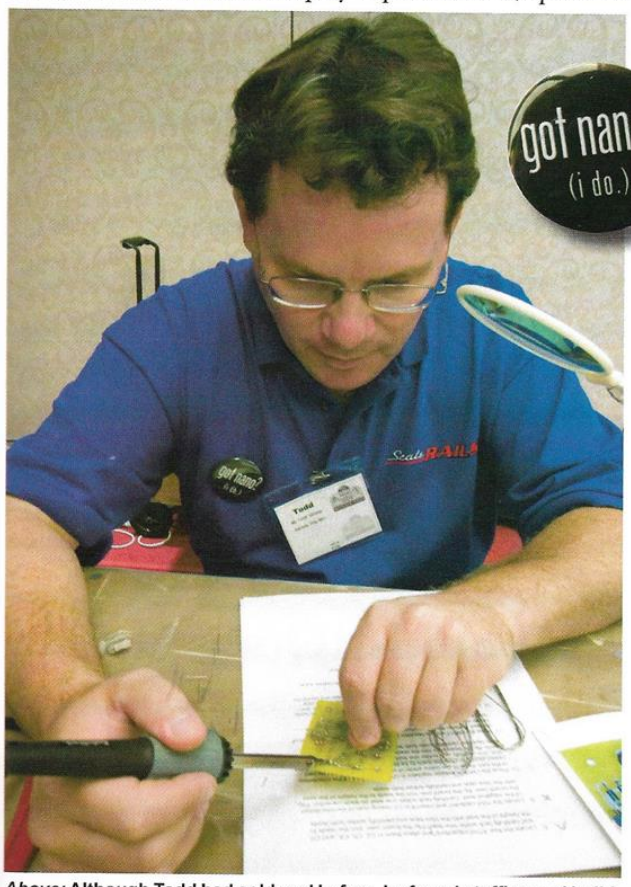
## Participating in an electronics clinic at the Great Lakes Express 2007

article by *Todd Gillette*

Leslie Eaton

One of the highlights of the convention for me was attending Leslie Eaton's Nano-Animation Electronics Workshop, where I had the opportunity to build a dual-voltage regulator/power supply. My limited modeling experience hadn't included any work with a soldering iron or circuit boards. My apprehensions were soon calmed by Leslie's assurance that "it isn't rocket science," and my realization that many other participants were new to the process as well.

After a brief explanation of the tools and materials involved, we were provided with detailed step-by-step instructions, a packet of




***Above:*** **Although Todd had soldered before, he found stuffing and building printed circuit boards to be interesting and challenging. Leslie had designed really nice two-sided boards and the process was enjoyable.**

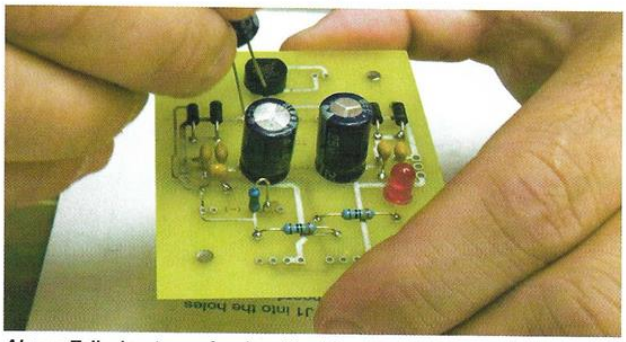
resistors, voltage regulators, diodes, electrolytic capacitors, bridge rectifiers, and a high quality, double-sided fiberglass printed circuit board with plated-through holes. Leslie didn't skimp on the goodies!

The first few minutes were a bit challenging as I was introduced to a wiring diagram and the corresponding photo of the finished

***Above:*** **Brook Qualman was busy stuffing her printed circuit boards with parts in preparation to solder. She was attending the convention with her husband.**

product. But with Leslie's patient help, I was soon soldering away and having a lot of fun with the other 25 participants. As I worked my way through each step of the instructions, I soon realized my creation was complete. After a quick inspection and "solder scrub" by Leslie, I proudly took my board to the testing station. A dark light emitting diode and discouraging voltage test indicated a flaw.

I was able to trace the culprit to a faulty 7805 five-volt voltage regulator. After a quick replacement, my red diode beamed brightly. My smile beamed just as brightly with my sense of accomplishment: I learned something new and had a great time. Isn't that what being a part of the NMRA is all about?



***Above:*** **Talk about a professional-looking board! The dual-voltage regulator circuit quickly took on the appearance of one designed and built in an electronics factory.**



**LESLIE EATON ON THE FOLLOWING PAGE**